

REMARKS

I. Claim Amendments

Applicant has amended Claim 1 of the application to incorporate the subject matter of original Claims 58 and 59. There is further basis for the amendments to Claim 1 in paragraph 57 and Examples 1 and 2 of the published U.S. application. Claim 84 has been amended to add n-propanol and water to the list of polar solvents. There is basis for this amendment in Examples 1 and 2 of the application. Where appropriate, the wording of the remaining dependent claims has been amended for conformity with amended Claim 1.

Further, Claims 50, 51, 54, 56-58, 86-87, 93-94, and 103 have been canceled from the application. New Claims 105-134 have been added to the application. New Claim 106 is based on original Claims 1, 58 and 59 and the nature of the polar solvent has been defined more closely on the basis of the text at paragraph 74 of the published U.S. application. Claims 107 to 134 correspond to the claims dependent on Claim 1. Accordingly, the amendments to the claims do not introduce new matter into the application.

II. Rejection under 35 U.S.C. § 103(a)

In the November 16, 2005 Office Action, the Examiner rejected claims 1, 46-48, 50-52, 54, 56, 58, 59, 61, 62, 70, 71, 78, 82-85, 92, 99 and 103 under 35 U.S.C. § 103(a) as being unpatentable over UK Patent Application No. GB 2247171 to Jackson in view of UK Patent Application No. GB 2338651 to Dorothy, et al. Applicant respectfully submits that the amended claims are not obvious in light of the art cited by the Examiner.

The law is clear that “[o]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination.” *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). In fact, MPEP § 2143.01 provides: “The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)” (emphasis added).

In the November 16, 2005 Office Action, the Examiner attempts to combine the teaching of the references without any suggestion in the art that such combination would be desirable. There is no disclosure or suggestion in Jackson of a composition containing component (ii) of amended Claim 1, namely, at least one compound having a low surface tension of from 8 to 14 mN/m and selected from the group consisting of silanes, soya lecithins, polydimethylsiloxanes, polydimethylhydroxysiloxanes and mixtures thereof. The Examiner cites Dorothy for the teaching of polydimethylsiloxanes in a liquid polymer composition despite the fact that there is no suggestion in the art that the polydimethylsiloxane of Dorothy can or should be combined with the composition of Jackson. The claimed invention taken *as a whole* cannot be considered to be obvious without some reason given in the prior art as to why one of ordinary skill would have been prompted to combine Jackson and Dorothy in this manner. This motivation is absent in the cited references.

The composition exemplified in Dorothy comprises (1) a polymer composition having four components, (2) a surfactant composition having five components, (3) a first

antibacterial agent composition having three components and (4) a second antibacterial agent composition having two components and water (see pages 9-10 of specification). This amounts to a total of fifteen separate components. Given the large number of components present in the composition of Dorothy, there are numerous ways in which the person of ordinary skill in the art could have altered the teaching of Jackson in view of the teaching of Dorothy. However, there is nothing in either document that would have encouraged the person of ordinary skill in the art to add the polydimethylsiloxane of Dorothy to the composition taught in Jackson in preference to any other alteration of Dorothy and Jackson. Thus, the only suggestion for the claimed combination comes from Applicant's own specification, an improper source for a suggestion to combine. Because the Examiner has not provided any motivation to combine the teachings of Jackson and Dorothy, a *prima facie* case of obviousness has not been satisfied.

Additionally, the references cited by the Examiner cannot be combined because the combination does not provide any evidence that a person of ordinary skill in the art would have had a sufficient basis for the required expectation of success. For example, Dorothy teaches that a strong acid is required in the composition to promote adhesion of the composition to surfaces such as glass. It is clear from the description at page 2, lines 12 to 14, that the strong acid is an essential feature of the composition. This is further emphasized by the inclusion of sulfuric acid in the only example described in Dorothy. Therefore, the skilled person would not have contemplated adding the polydimethylsiloxane of Dorothy to a composition such as that taught in Jackson, which does not contain a strong acid. The skilled person most certainly would have had no expectation that a composition containing polydimethylsiloxane but free of a strong acid

would have the necessary surface adhesion to act as an effective and long-lasting anti-microbial composition as the compositions of the present invention do.

Additionally, because the only example in Dorothy requires the presence of three surfactants in addition to the polydimethylsiloxane, the skilled person would have had no expectation that a useful composition containing polydimethylsiloxane could be produced that did not contain such a combination of surfactants and he would not have been motivated to provide a composition that did not comprise such a surfactant mixture. Accordingly, in comparing the prior art to the claimed invention, the Examiner cannot base obviousness on what a skilled person in the art might try, but rather, must consider what the prior art would have led a skilled person in the art to do. There are endless possibilities of individual materials and combinations of materials from the composition of Dorothy that that could have been introduced into the compositions of Jackson. However, on the basis of the teaching of these documents the skilled person would have had no expectation that any one single component or any mixture of components could be advantageously introduced into the compositions of Jackson in the absence of the other components described in Dorothy. There is simply no teaching in either reference that the addition of polydimethylsiloxane to the Jackson composition would have any expectation of success.

In addition, the compositions of the invention have advantageous properties that could not have been predicted from the teachings of Jackson and Dorothy alone or in combination. The compositions of the invention not only kill micro-organisms that are present on a surface to which they are applied but also have a residual effect in that they *substantially reduce or control the formation of microbial colonies on or at the*

surface to which they have been applied. In other words, the compositions of the invention have a lasting effect. This is entirely different from the effect taught in Jackson or Dorothy. For instance, it is clear from the methodology described in Jackson that the reference is concerned only with compositions that kill micro-organisms that are present at a treated surface and not with controlling the formation of micro-organisms at that surface.

In contrast, the compositions of the present invention are surprising in that not only do they kill micro-organisms that are present on a surface at the time a composition of the invention is applied, but they also control the formation of micro-organisms at that surface for a considerable time after application, in some cases even for a matter of months or years without damaging the surface to which they are applied. The skilled person reading Jackson and Dorothy could not have predicted that a composition as now claimed could have these advantageous properties and address the shortcomings of the prior art.

In sum, in view of the foregoing arguments, we respectfully submit that the rejected claims are patentably distinct over the references cited by the Examiner and meet all other statutory requirements. We believe that the present Application is now in complete condition for allowance and, therefore, respectfully request the Examiner to reconsider the rejections in the Office Action and allow this Application.

We invite the Examiner to telephone the undersigned should any issues remain after the consideration of this response. Please charge any additional fees that may be required to Deposit Account No. 50-2548.

Respectfully requested,

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Date


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